

**Notice of Allowability**

Application No.

10/049,458

Examiner

Anh V La

Applicant(s)

JI-TAE KIM ET AL

Art Unit

2636

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on Sept. 14, 2004 and the interview dated on Jan. 07, 2005.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☒ The drawings filed on 24 June 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☒ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

**I. Statement of Reasons for Allowance:**

The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the prior art cited herein fails to disclose a passive transponder identification system for detecting and monitoring the existing of automobiles and other object within a constant detection area comprising a transmitter 100 to radiate two different radio frequency (RF) signals within the area to a transmitting antenna 110, either of the signals being modulated to a fixed low frequency (LF) and an antenna 210 modulated with two different center frequencies, wherein an impedance semiconductor circuit part 220 inserted into the modulated antenna combines the two RF signals, and the system further includes a transponders 200 having a tank circuit to contain a resonant frequency equal to sum of two different frequencies to re-radiate a data-tone carrier signal to such combined frequency and a narrow-bandwidth receiver 300 having a receiving antenna 310 to receive and demodulate the carrier signal by excluding the transmitting RF signal and it harmonics to detect LF modulating signal.

Regarding claim 11, the prior art cited herein fails to disclose a system to detect cars or other objects existing within a detection area comprising a transmitter 100 to run and radiate radio frequencies (RFs) having a narrow-bandwidth by using a carrier frequency modulated by a certain LF tone, wherein the system includes a transponder 200 to respond the signal from the transmitter 100 to be radiated by the transmitter 100 to run and re-radiate the carrier signal by different harmonics, the re-radiated signal comprising a fixed LF tone produced by adding a data stream to the LF tone, the system further comprises a receiving system 300 having a narrow-bandwidth filter 311 to contain the carrier signal re-radiated at the harmonics so that it produces filtered output corresponding the re-radiated signal received by an antenna 310 to receive said re-radiated carrier signal and to prevent the signals including ones of even the

frequencies other than the narrow-bandwidth received by the antenna 310, and having a demodulation means responding to a comparison level of the output to generate LF modulation signal and demodulate the filtered output even when a comparator 312 exceeds a preset threshold value and runs.

**II. Examiner's Amendment:**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CAR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Michael E. Kondoudis on January 07, 2005

**Examiner's Amendment**

**In the claims:**

Claims 15-21 have been canceled.

In claim 1, line 3, the phrase "RF signals" has been changed to - -radio frequency (RF) signals--.

In claim 1, lines 6-7, the phrase "said RFs" has been changed to - -said two RF signals--.

In claim 11, line 2, the phrase "radiate RFs" has been changed to - -radiate radio frequencies (RFs)--.

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**In the abstract:**

In the abstract, line 9, the phrase "means of" has been canceled.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh V La whose telephone number is (571) 272-2970. The examiner can normally be reached on Mon-Fri from 9:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery Hofsass can be reached on (571) 272-2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**ANH V. LA**  
**PRIMARY EXAMINER**

Anh V La  
Primary Examiner  
Art Unit 2636

AI  
January 07, 2005